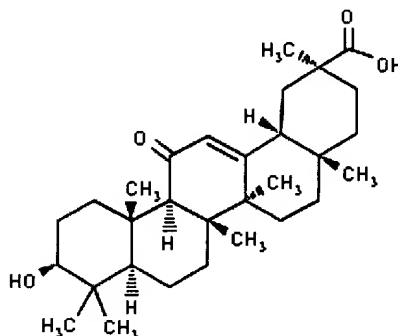
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Full Record**[▷ Tox. & Env. Health](#) [▷ TOXNET](#) [▷ Return to Results Page](#)

**Enoxolone [BAN:DCF:INN]**  
**RN: 471-53-4**  
**MW: 470.689**

**Names and  
Synonyms****MeSH Heading**[i](#) Glycyrrhetic acid**Name of Substance**

[i](#) (3beta,20beta)-3-Hydroxy-11-oxo-olean-12-en-29-oic acid  
[i](#) Enoxolone  
[i](#) Enoxolone [BAN:DCF:INN]  
[i](#) Glycyrrhetic acid  
[i](#) Glycyrrhetinic acid  
[i](#) Olean-12-en-29-oic acid, 3-hydroxy-11-oxo-, (3beta,20beta)-

**Synonyms**

[i](#) 18-beta-Glycyrrhetic acid  
[i](#) 18-beta-Glycyrrhetinic acid  
[i](#) 18beta-Glycyrrhetinic acid  
[i](#) 3-Glycyrrhetinic acid  
[i](#) 3-beta-Hydroxy-11-oxoolean-12-en-30-oic acid  
[i](#) 3beta-Hydroxy-11-oxoolean-12-en-30-oic acid  
[i](#) 4-10-00-03775 (Beilstein Handbook Reference)  
[i](#) BRN 2229654  
[i](#) Biosone  
[i](#) CCRIS 3962  
[i](#) EINECS 207-444-6  
[i](#) Enoxolona [INN-Spanish]  
[i](#) Enoxolone  
[i](#) Enoxolonum [INN-Latin]  
[i](#) Glycyrrhetic acid  
[i](#) Glycyrrhetin  
[i](#) NSC 35347  
[i](#) Uralenic acid  
[i](#) alpha-Glycyrrhetinic acid

**Systematic Name**

[i](#) 18beta-Glycyrrhetinic acid  
[i](#) 3beta-Hydroxy-11-oxoolean-12-en-30-oic acid

- ☐ Enoxolone
- ☐ Olean-12-en-29-oic acid, 3-hydroxy-11-oxo-, (3beta,20beta)-
- ☐ Olean-12-en-30-oic acid, 3-beta-hydroxy-11-oxo-
- ☐ Olean-12-en-30-oic acid, 3beta-hydroxy-11-oxo- (8Cl)

**Registry  
Numbers****CAS Registry Number**☐ 471-53-4**Other Registry Number**☐ 107420-91-7☐ 15301-63-0☐ 202522-39-2☐ 8055-71-8**System Generated Number**☐ 000471534**Classification  
Codes****Classification Code**☐ Anti-inflammatory agents, topical**Formulas****Molecular Formula**☐ C30-H46-O4**Notes****Note**

☐ 3-beta-Hydroxy-11-oxolean-12-en-30-oic acid. A product from Glycyrrhiza glabra L. Leguminosae with some antiallergic, antibacterial, and antiviral properties. It is used topically for allergic or infectious skin inflammation and orally for its aldosterone effects in electrolyte regulation.

**Locators****File Locator**

AIDSLINE

☐ AIDS Citations from MEDLINE

CANCERLIT

☐ CANCER LITerature from Medline

CCRIS

☐ NCI Chem Carcino Res Info Sys

DART/ETIC

☐ Developmental and Reprod.Tox.

EINECS

☐ EU Inv of Exist. Comm. Chem Sub

EMIC

☐ Env. Mutagen Info. Center

MEDLINE

☐ MEDical literature onLINE

MESH

☐ Medical Subject Headings File

RTECS

☐ Reg. of Toxic Eff. of Chem. Sub.

TSCAINV

☐ EPA Chem. Sub. Inventory

MESH HEADING

☐ Medical Subject Headings

TOXLINE Special

☐ NLM TOXLINE Special on TOXNET

TOXLINE Core

☐ NLM TOXLINE Core from MEDLINE**Internet Locator**

EPA CRS

☐ EPA Substance Registry System

ChEBI

☐ Chem Entities of Biological Interest**Toxicity**

			Reported		
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Organism	Test Type	Route	Dose (Normalized Dose)	Effect	Source
mouse	LD50	intraperitoneal	308mg/kg (308mg/kg)		Drugs in Japan Vol. -, Pg. 319, 1990.
mouse	LD50	intravenous	56mg/kg (56mg/kg)		U.S. Army Armament Research & Development Command, Chemical Systems Laboratory, NIOSH Exchange Chemicals. Vol. NX#02067,
mouse	LD50	subcutaneous	518mg/kg (518mg/kg)		Gekkan Yakuji. Pharmaceuticals Monthly. Vol. 5, Pg. 98, 1963.

## Physical Properties

Physical Property	Value	Units	Temp (deg C)	Source
Melting Point	296	deg C		EXP
log P (octanol-water)	6.900	(none)		EST
Atmospheric OH Rate Constant	1.12E-10	cm <sup>3</sup> /molecule-sec	25	EST

Physical property data is provided to ChemIDplus by Syracuse Research Corporation.  
See [all available property data for this compound](#), including references.

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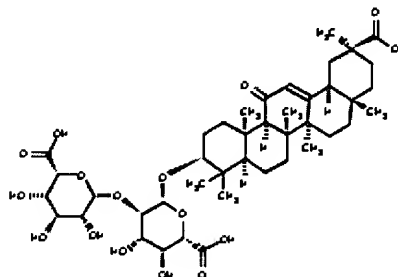
**SIS**



## ChemIDplus Advanced Full Record

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**Glycyrrhizin [JAN]**  
**RN: 1405-86-3**  
**MW: 822.936**



### Names and Synonyms

#### MeSH Heading

**[i]** Glycyrrhizic acid

#### Name of Substance

**[i]** (3beta,20beta)-20-Carboxy-11-oxo-30-norlean-12-en-3-yl-2-O-beta-1- 7-glucopyranuronosyl-alpha-D-glucopyranosiduronic acid

**[i]** Glycyrrhizic acid

**[i]** Glycyrrhizin

**[i]** Glycyrrhizin [JAN]

**[i]** Glycyrrhizinic acid

**[i]** alpha-D-Glucopyranosiduronic acid, (3beta,20beta)-20-carboxy-11-oxo-30-norlean-12-en-3-yl-2-O-beta-1- 7-glucopyranuronosyl-

#### Synonyms

**[i]** 18-beta-Glycyrrhizic acid

**[i]** 20beta-Carboxy-11-oxo-30-norolean-12-en-3beta-yl-2-O-beta-D-glucopyranuronosyl-alpha-D-glucopyranosiduronic acid

**[i]** 4-18-00-05156 (Beilstein Handbook Reference)

**[i]** BRN 0077922

**[i]** EINECS 215-785-7

**[i]** Glycyron

**[i]** Glycyrrhetic acid glycoside

**[i]** Glycyrrhizic acid

**[i]** Glycyrrhizin

**[i]** Glycyrrhizinic acid

**[i]** Glycyrrizin

**[i]** HSDB 496

**[i]** Liquorice

**[i]** NSC 167409

**[i]** NSC 234419

**[i]** NSC 2800

**[i]** Rizinsan K2 A2 (free acid)

**[i]** alpha-D-Glucopyranosiduronic acid, (3beta,20beta)-20-

carboxy-11-oxo-30-norolean-12-en-3-yl-2-O-beta-D-glucopyranuron osyl-

**Systematic Name**

☐ 20beta-Carboxy-11-oxo-30-norolean-12-en-3beta-yl-2-O-beta-D-glucopyranuronosyl-alpha-D-glucopyranosiduronic acid

☐ Glycyrrhizic acid

☐ Glycyrrhizinic acid

☐ alpha-D-Glucopyranosiduronic acid, (3beta,20beta)-20-carboxy-11-oxo-30-norolean-12-en-3-yl 2-O-beta-D-glucopyranuronosyl-

**Registry Numbers****CAS Registry Number**

☐ 1405-86-3

**Other Registry Number**

☐ 139014-59-8

☐ 18933-02-3

☐ 31261-47-9

☐ 47897-45-0

☐ 47897-48-3

☐ 70055-50-4

☐ 79165-07-4

**System Generated Number**

☐ 001405863

**Classification Codes**

☐ Anti-infective agents

☐ Anti-inflammatory agents, non-steroidal

☐ Antifungal agents

☐ Antiviral agents

☐ Drug / Therapeutic Agent

☐ Human Data

☐ Mutation data

**Formulas****Molecular Formula**

☐ C42-H62-O16

**Notes****Note**

☐ A widely used anti-inflammatory agent isolated from the licorice root. It is metabolized to glycyrrhetic acid, which inhibits 11 beta-hydroxysteroid dehydrogenase and other enzymes involved in the metabolism of corticosteroids. Therefore, glycyrrhizic acid, which is the main and sweet component of licorice, has been investigated for its ability to cause hypermineralocorticoidism with sodium retention and potassium loss, edema, increased blood pressure, as well as depression of the renin-angiotensin-aldosterone system.

**Locators****File Locator**

AIDSLINE

☐ AIDS Citations from MEDLINE

CANCERLIT

☐ CANCER LITerature from Medline

DSL

☐ Domestic Sub. List of Canada

EINECS

☐ EU Inv of Exist. Comm. Chem Sub

EMIC

☐ Env. Mutagen Info. Center

HSDB

☐ Hazardous Substances Data Bank

MEDLINE

☐ MEDical literature onLINE

MESH	<a href="#">i</a> Medical Subject Headings File
RTECS	<a href="#">i</a> Reg. of Toxic Eff. of Chem. Sub.
TSCAINV	<a href="#">i</a> EPA Chem. Sub. Inventory
MESH HEADING	<a href="#">i</a> Medical Subject Headings
CCRIS	<a href="#">i</a> NCI Chem Carcino Res Info Sys
TOXLINE Special	<a href="#">i</a> NLM TOXLINE Special on TOXNET
TOXLINE Core	<a href="#">i</a> NLM TOXLINE Core from MEDLINE
Household Products	<a href="#">i</a> Household Products Database

**Internet Locator**

EPA CRS	<a href="#">i</a> EPA Substance Registry System
NIAID ChemDB	<a href="#">i</a> NIAID Chemical Database
ChEBI	<a href="#">i</a> Chem Entities of Biological Interest

**Toxicity**

Organism	Test Type	Route	Reported Dose (Normalized Dose)	Effect	Source
human	TDLo	oral	5571ug/kg/3D- (5.571mg/kg)	KIDNEY, URETER, AND BLADDER: OTHER CHANGES IN URINE COMPOSITION	Toxicologist. Vol. 54, Pg. 109, 2000.
human	TDLo	oral	280mg/kg/4W (280mg/kg)	BEHAVIORAL: SOMNOLENCE (GENERAL DEPRESSED ACTIVITY)	British Medical Journal. Vol. 1, Pg. 488, 1977. <a href="#">Link to PubMed</a>
man	TDLo	oral	662mg/kg/1Y-I (662mg/kg)	BEHAVIORAL: CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD  BEHAVIORAL: MUSCLE WEAKNESS	Internal Medicine. Vol. 31, Pg. 708, 1992. <a href="#">Link to PubMed</a>
mouse	LD50	intravenous	589mg/kg (589mg/kg)	LUNGS, THORAX, OR RESPIRATION: RESPIRATORY STIMULATION  LUNGS, THORAX, OR RESPIRATION: OTHER CHANGES	Zhongguo Yaoxue Zazhi. Chinese Pharmacuetical Journal. Vol. 28, Pg. 215, 1993.
mouse	LD50	oral	4320mg/kg (4320mg/kg)	LUNGS, THORAX, OR RESPIRATION: RESPIRATORY STIMULATION  LUNGS, THORAX, OR RESPIRATION: OTHER CHANGES	Zhongguo Yaoxue Zazhi. Chinese Pharmacuetical Journal. Vol. 28, Pg. 215, 1993.
mouse	LDLo	intraperitoneal	1gm/kg (1000mg/kg)		Yakuri to Chiryo. Pharmacology and Therapeutics. Vol. 5, Pg. 2041,

					1977.
rat	LD	intravenous	> 300mg/kg (300mg/kg)		Yakuri to Chiryo. Pharmacology and Therapeutics. Vol. 5, Pg. 2041, 1977.
rat	LDLo	intraperitoneal	2gm/kg (2000mg/kg)		Yakuri to Chiryo. Pharmacology and Therapeutics. Vol. 5, Pg. 2041, 1977.
rat	LDLo	oral	3gm/kg (3000mg/kg)		Yakuri to Chiryo. Pharmacology and Therapeutics. Vol. 5, Pg. 2041, 1977.

Physical  
Properties

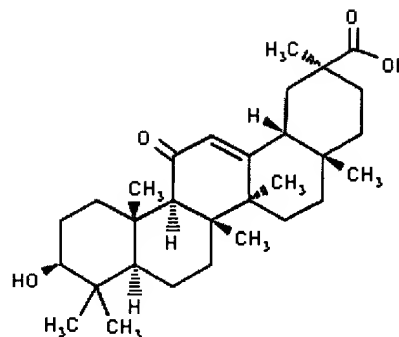
Physical Property	Value	Units	Temp (deg C)	Source
Melting Point	220 dec	deg C		EXP
log P (octanol-water)	2.8	(none)		EXP
Water Solubility	0.053	mg/L	25	EST
Vapor Pressure	5.22E-34	mm Hg	25	EST
Henry's Law Constant	1.23E-35	atm-m <sup>3</sup> /mole	25	EST
Atmospheric OH Rate Constant	2.30E-10	cm <sup>3</sup> /molecule-sec	25	EST

Physical property data is provided to ChemIDplus by [Syracuse Research Corporation](#).  
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RN: 471-53-4**

MW: 470.689

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